

TWO NEW ADDITIONS TO HIDALGOA AND BIDENS (COMPOSITAE)

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Recently I was permitted by Dr. Peter H. Raven, of Stanford University, to examine a small collection of Coreopsidinae that had been obtained shortly before in the State of Chiapas, Mexico. One of these proved definitely to be a previously undescribed species of *Hidalgoa* Llave in Llave & Lex. It may be set forth here as:

HIDALGOA *Breedlovei* Sherff, sp. nov. Vitis sursum scandens, subglabra, altitudinis non dictae, caule ramisque tenuibus sulcatisque nodos versus hispidulis setulis pluriloculatis, internodiis saepius 1 dm. longis et sub 2.5 mm. crassis, minute plus minusve papillato-hispidulis. Folia opposita, tenerrime elongateque petiolata, normaliter estipulata, axillis interdum cum gemma minuta abortivaque; petiolis basim versus saepe tortis pampiniformibusque et minute ciliatis, plerumque 3-6 cm. longis; lamina tripartita, tenui, circumambitu deltoidea usque ad \pm 1.7 dm. lata et ad 1.4 dm. longa, faciebus subglabra sed marginibus minute revolutis minutissime plus minusve ciliolata, alibi irregulariter pulverulenta vel papillata glandulosave; foliolo mediano subrhomboideo-ovato vel -obovato, ad basim vix petiolulato, ad apicem vix brev-acuminatá, supra medium utroque latere aegre circ. 3-6 dentato dentibus plus minusve rotundatis et apice acriter mucronulatis, usque ad 1 dm. longo et ad 6 cm. lato; foliolis lateralibus subsessilibus, inaequaliter ovatis, paulum minoribus. Capitula radiata, pansa ad anthesin 4-5 cm. lata et circ. 1.5-1.8 cm. alta, pedunculis tenuibus usque ad \pm 1.5 dm. longis, remote dispositis, sparsim hispidulis, sulculatis. Involucri bracteae exteriores plerumque 4 vel 5, patentes vel subreflexae, ovatae, 3.0-4.5 mm. longae, paucistriatae, faciebus irregulariter adpresso-setulosae; interiores angustiores, duplo longiores, apicem versus moderate attenuatae, saepe fere glabrescentes. Flores ligulati 8 (rarius 9 vel etiam 10), aurantiaci, circ. 2.0-2.2 cm. longi et 6-7 mm. lati, ligula oblonge oblineari longitudinaliter striata apice acriter breviterque 2- vel 3-denticulata; stylo biramoso. Achaenia matura non visa; unicum immaturum ex radio visum lineari-oblongum, obcompressum, atro-brunneum, utraque facie unicostatum et sursum praecipue supra setosum, circ. 1.5 mm. latum et plus 4 mm. longum, lateribus anguste marginatum, apice bidentatum dentibus crassis circ. 1 mm. longis marginibus exterioribus papillato-ciliatis, sub dentibus sursum angustissime incurvato-aristulatum. Paleae membranaceae, lineari-oblongae, apicem versus subacutae, extus glabratae vel interdum paulum albido-setulosae, 5-6 mm. longae. Flores

tubulosi elongati paleas superantes, corolla tenui-infundibuliformes, lobis 5, angustis acutisque, erectis vel patentibus, stylo simplici elongato primum flavo demum brunneo; achaeniis abortivis.

Specimens examined: *Dennis E. Breedlove* 8873, flowers orange, vine; on slope with *Pinus* and *Liquidambar* along road to Pueblo Nuevo Solistahuacán, elevation of 5600 feet, 5 miles south of Jitotol, Municipio of Jitotol, Chiapas, Mexico, Feb. 11, 1965 (type, DS; isotypes F, MICH, US, also Instituto Nacional de Investigaciones Forestales in Mexico City).

In my recent, essentially monographic treatment of *Hidalgia* (Llave in Llave & Lex. Nov. Veg. Descr. 1: 15. 1824) for the North American Flora (Ser. II, part 2, pp. 59-61, 1955) a key was presented to the four species and one variety known for the genus at that time. These ranged in habitat from southern Mexico (*H. ternata* Llave and *H. pentamera* Sherff) through Guatemala (*H. Steyermarkii* Sherff), Costa Rica (*H. Wercklei* Hook. f.) and into Colombia (var. *colombiana* Sherff¹) and into Ecuador and Peru (*H. ternata* Llave).

With the several flowering specimens of *H. Breedlovei* before me, it is now possible to present here a revised key to include all five presently known species of *Hidalgia* and the one differing variety:

- a. Lobes of disk-corollas recurved, style of disk-florets shortly bifid, stipules obvious, ray-florets about 9. *H. Wercklei*
- a. Lobes of disk-corollas erect or spreading, style of disk-florets usually unbranched, stipules commonly obsolete or lacking.
 - b. Ray-florets about 5.
 - c. Leaves ternate with simple leaflets.
 - d. Internodes of the stem or branches elongate (to \pm 2 dm.); petioles 3-9 cm. long; leaflets 3-9 cm. long, 2-6 cm. wide; peduncles often 10-25 cm. long; outer involucre bracts \pm 1 cm. long. *H. ternata*
 - d. Internodes of the stem or branches under 1 dm. long; petioles 2-4 cm. long; leaflets 1-4 cm. long, about 1.0-2.8 cm. wide; peduncles 4-7 cm. long; outer involucre bracts about 4-5 mm. long. *H. Steyermarkii*
 - c. Leaves appearing palmately 5-parted. *H. pentamera*
 - b. Ray-florets 8 or 9 or more rarely 10 *H. Breedlovei*

A second lot of specimens was received from the Smithsonian Institution through the kindness of Dr. John J. Wurdack. These belonged to the genus *Bidens* L. and had come from Colombia. One was referable to *B. Rubifolia* H.B.K. specifically, but displayed flowering heads variably different, as noted below, from those of the species proper. In allusion to the especially numerous external phyllaries (fully or nearly twice as many as is characteristic for the species—i.e., var. *Rubifolia*), I have designated it as:

¹ Var. *colombiana* was validly published in 1947: Amer. Journ. Bot. 34: 152, but erroneously cited at the time of my revisional key's publication as "var. nov."

BIDENS Rubifolia var. **multibracteata** Sherff, var. nov. Frutex varietati *Rubifoliae* dissimilis foliis minoribus lamina tenui erugulosa ecoriaceaue; capitulis numerosiore bracteatis radiatisque; bracteis exterioribus 12-18 (non circ. 8-10), floribus ligulatis circ. 10 (non saepius 5).

Specimens examined: *Robert Merrill King 5644, cum Alvaro L. Guevara et Enrique Forero-G.*, common reclining shrubs circa 2 meters tall, open area, flowers yellow, wood voucher; common name mortiño, elevation circ. 9000 feet, circa 1 km. south of Usme, Department of Cundinamarca, Eastern Cordillera, Colombia, June 18, 1965 (type, F).